

B-1  
cont'd

incident surface (a surface including a normal of the sample surface and a light traveling direction).

B2

Page 6, first paragraph:

When image light is projected onto a screen either from slanting above or from slanting below, an angle, which is formed by a principal ray of light incident to the screen and a normal of the screen, (i.e. a perpendicular line to the screen) is larger in a vertical direction than in a horizontal direction. Therefore, when a polarization direction of a green component, of which spectral luminous efficiency for a man's eyes is high, is made parallel to a vertical cross section of the screen, less image light is reflected and lost on a back surface of the screen.

B3

Page 7, third paragraph:

When image light is projected onto a screen on a slant, an angle, which is formed by a principal ray of light incident to the screen and a normal of the screen, is larger in a horizontal direction than in a vertical direction. Therefore, when a polarization direction of a green component, of which spectral luminous efficiency for a man's eyes is high, is made parallel to a horizontal cross section of the screen, less image light is reflected and lost on a back surface of the screen.

B4

Page 9, third paragraph:

When image light is projected onto a screen on a slant, an angle, which is formed by a principal ray of light incident to the screen and a normal of the screen is maximum in a plane including the image light irradiated on the screen and a normal of the screen. Therefore, when a polarization direction of a green component, of which spectral luminous efficiency for a man's eyes is high, is made parallel to the plane including the image light irradiated on the screen and a normal of the screen, less image light is reflected and lost on a back surface of the screen.

Page 10, second paragraph:

This structure ensures that a color component of which a polarization direction is orthogonal with a plane which includes image light irradiated on the screen and a normal of the screen out of the image light synthesized by the color synthesizing means, is selectively adjusted so that the color component is made parallel to a plane which includes the image light irradiated on the screen and the normal of the screen.

[Page 10, third paragraph:]

It is preferred that the polarization directions of all the color components of the image light irradiated on the screen are parallel to a plane which includes the image light irradiated on the screen and a normal of the screen (i.e., a perpendicular line to the screen).

[Page 10, fourth paragraph:]

A polarization direction adjusting means is provided for selectively adjusting a color component from the image light synthesized by the color synthesizing means so that the polarization direction of the color component is parallel to the plane including the image light irradiated on the screen and a normal of the screen. The polarization direction is orthogonal with the plane which includes the image light irradiated on the screen and the normal screen.

[Page 11, first complete paragraph:]

This structure ensures that a color component of which a polarization direction is orthogonal with a plane which includes image light irradiated on the screen and a normal of the screen out of the image light synthesized by the color synthesizing means, and is selectively adjusted so that the color component is made parallel to a plane which includes the image light irradiated on the screen and the normal of the screen (i.e., a perpendicular line to the screen).

Page 11, third paragraph:

In a rear projection display device of this invention, the relation  $j\text{-min} < \beta < j\text{-max}$  is satisfied, wherein an angle of a maximum value ( $j\text{-max}$ ) and a minimum value ( $j\text{-min}$ ) are formed by a normal of a front surface of the screen and by a principal ray of the image light irradiated on the front surface of the screen, and an angle  $\beta$  is obtained when the reflectivity of light, having a polarization direction parallel to the vertical cross section of the screen, to the front surface of the screen is at a minimum.

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[Page 12, first paragraph:]

In this structure, light having a polarization direction parallel to a vertical cross section of a screen is irradiated on a back surface of the screen at an angle  $\alpha$  at which the reflectivity to a normal of a back surface of the screen is low.

[Page 12, second paragraph:]

In a rear projection display device of this invention, the relation  $j\text{-min} < \beta < j\text{-max}$  is satisfied, wherein an angle of a maximum value ( $j\text{-max}$ ) and a minimum value ( $j\text{-min}$ ) are formed by a normal of a front surface of the screen and by a principal ray of the image light irradiated on the front surface of the screen, and an angle  $\beta$  is obtained when the reflectivity of light, having a polarization direction parallel to the vertical cross section of the screen, to the front surface of the screen is at a minimum.

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Page 13, second paragraph:

In a rear projection display device of this invention which image light is irradiated onto the back surface of the screen from a slant, and a picture is observed from the front surface of the screen, the relationship of  $i\text{-min} < \alpha < i\text{-max}$  is satisfied, where an angle of a maximum value ( $i\text{-max}$ ) and a minimum value ( $i\text{-min}$ ) is formed by a normal of the back surface of the screen and by a principal ray of the image light irradiated on the back surface of the screen. The angle  $\alpha$  is obtained when the reflectivity of light, having a polarization direction parallel to the horizontal cross section of the screen, to the back surface of the screen is at a minimum.

[Page 13, third paragraph:]

In this structure, light having a polarization direction parallel to a horizontal cross section of a screen is irradiated onto a back surface of the screen at an angle including the  $\alpha$  angle at which the reflectivity to a normal of a back surface of the screen of the back surface of the screen is low.

[Page 14, first paragraph]

In a rear projection display device of this invention, the relation  $j\text{-min} < \beta < j\text{-max}$  is satisfied, where an angle of a maximum value ( $j\text{-max}$ ) and a minimum value ( $j\text{-min}$ ) is formed by a normal of the front surface of the screen and by a principal ray of the image light irradiated on the front surface of the screen. The angle  $\beta$  is obtained when the reflectivity of light, having a polarization direction parallel to the horizontal cross section of the screen, to the front surface of the screen is at a minimum.

[Page 14, second paragraph]

In this structure, light having a polarization direction parallel to a horizontal cross section of a screen is irradiated onto a front surface of the screen at an angle including the angle  $\beta$  at which the reflectivity to a normal of the back surface of the screen of the back surface is low.

Page 15, first paragraph:

In a rear projection display device of this invention, the relationship of  $j\text{-min} < \beta < j\text{-max}$  is satisfied, where an angle of a maximum value ( $j\text{-max}$ ) and a minimum value ( $j\text{-min}$ ) is formed by a normal of a front surface of the screen and by a principal ray of the image light irradiated onto the front surface of the screen. The angle  $\beta$  is obtained when the reflectivity of light, having a polarization direction parallel to a plane including image light irradiated onto the front surface of the screen and [onto] a normal of the front surface of the screen, to the front surface of the screen is minimum.

[Page 15, second paragraph:]

In this structure, light having a polarization direction parallel to a plane including image light irradiated onto the front surface of the screen and onto a normal of a front surface of the screen is irradiated at an angle including the angle  $\beta$  at which the reflectivity to a normal of a front surface of the screen at the front surface of the screen is low.

BS  
concluded

[Page 15, third paragraph:]

In a rear projection display device of this invention, the relationship of  $j\text{-min} < \beta < j\text{-max}$  is satisfied, where an angle of a maximum value ( $j\text{-max}$ ) and a minimum value ( $j\text{-min}$ ) is formed by a normal of the front surface of the screen and by a principal ray of the image light irradiated onto the front surface of the screen. The angle  $\beta$  is obtained when the reflectivity of light, having a polarization direction parallel to the plane including image light irradiated onto the front surface of the screen and onto a normal of the front surface of the screen, to the front surface of the screen is minimum.

[Page 16, first paragraph:]

In this structure, light having a polarization direction parallel to a plane including image light irradiated onto the front surface of the screen and a normal of the front surface of the screen is irradiated on a front surface of the screen at an angle including the angle  $\beta$  at which the reflectivity to a normal of a front surface of the screen at the front surface of the screen is low.

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Page 16, third paragraph:

ba

The polarization direction of at least the green component from the image light irradiated onto the screen is parallel to a plane including image light irradiated onto a back surface of the screen and onto a normal of the back surface of the screen.

[Page 16, fourth paragraph:]

When a polarization direction of the green component is made parallel to a plane including image light irradiated onto the front surface of the screen and a normal of the front surface of the screen, less image light is reflected and lost on a back surface of the screen.

b10  
Page 18, third paragraph:

An image forming system is composed of the first-third mirrors 3-5. The first mirror 3 has an aspherical concave shape, the second and third mirrors 4, 5 have aspherical convex shapes. The shapes of the mirrors in the image forming system ensure corrections of aberration, such as astigmatism, coma, and also ensure magnifications of the image light. The image light emitted from the projection unit 2 is successively reflected on the first-third mirrors 3-5, and is irradiated on the fourth mirror 6 which is arranged on the internal back surface of the body 1. The image light irradiated on the fourth mirror 6, which is of a flat plate shape, is irradiated from slantly behind on a back surface of the screen 7 which is arranged on a front opening of the body 1. A picture is thereby formed.

b11  
Page 22, first paragraph:

As shown in Fig. 1, the image light transmitted through the  $\lambda/2$  retardation plate 29 is successively reflected on the first-third mirrors 3-5 which compose the image forming system, and is irradiated to the fourth mirror 6 arranged on the back surface of the body 1. The shapes of the mirrors in the image forming system ensure corrections of aberration, such as astigmatism, coma, and also ensure magnification of the image light.

b12  
Page 25, third paragraph:

An angle (i) is formed by a principal ray of the image light irradiated onto the screen 7 and the normal A of the screen 7. The angle (i) is set to satisfy the below expression 2. Therefore, the utilization efficiency of P-polarized light component can be improved, leading to higher brightness.

Page 26, second paragraph:

B13

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An angle of an inclined surface 71b is set so that an angle ( $j$ ), which is formed by a normal B to the inclined surface 71b of the fresnel lens screen 71 and a principal ray of the image light irradiated to the screen 71, is j-max at maximum and j-min at minimum on each protruded inclined surface 71b of the fresnel lens screen 71. In this embodiment, an inclination  $\tau$  of each inclined surface 71b is set so that j-max is  $38.36^\circ$  and j-min is  $22.57^\circ$ .

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Page 28, first paragraph:

B14

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An angle ( $j$ ), which is formed by the principal ray of the image light irradiated onto the inclined surface 71b of the screen 7 and the normal B of the inclined surface 71b, satisfies the expression 3 below. Therefore, the light utilization efficiency of P-polarized light component itself can be improved, leading to higher brightness.

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